



NETLIST

Industrial Grade Flash Products

Overview

The growing industrial market for flash memory has demanding requirements that the consumer market cannot address. While price is a primary focus of consumers, OEMs serving mission-critical applications such as telecommunications, military, and medical applications, place higher value on reliability, speed, lifespan, and supply consistency. Available in multiple form factors, Netlist's industrial grade flash products meet these challenges with best-in-class attributes:

- Advanced static wear leveling, bad block management (BBM), and error correction coding (ECC) enable Netlist to guarantee its flash memory modules to 3 million write/erase cycles—50% more than competitive offerings.
- Netlist flash modules sustain read and write access speeds of 40 Mbytes per second due to an SLC (single level cell) NAND flash architecture, 32-bit RISC processor, advanced file-management algorithms, and parallel-chip architecture.
- Mechanical and environmental reliability enhancements withstand extreme temperature, shock, vibration, humidity, altitude, and ESD levels.
- A fixed bill of materials (BOM), certified production processes, and vendor partnerships ensure a consistent, long-term supply source.
- Data integrity is ensured with best in class hardware and firmware monitoring of power and write-operation status to ensure that unscheduled power loss does not write corrupt data to the flash. This is independent of the host system's ability to monitor power status.

Compact Flash



PC Card



Secure Digital



Micro SD



SFDM



UFDM



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Form Factor	Capacity	Sustained Read/Write Speed	Interface	Supported Operating Systems
Compact Flash	64MB to 16GB	Up to 25MB/s	ATA with True IDE mode support, MWDMA. 50-pin CF Interface	Any OS supporting standard IDE
PC Card	64MB to 16GB	Up to 10MB/s	ATA with True IDE mode support, MWDMA. 68-pin PCMCIA Interface	Any OS supporting standard IDE
Secure Digital 1.1	256MB to 2GB	Up to 15MB/s	SD 1-bit Interface	Any OS supporting SD/MMC/SPI
Secure Digital High Capacity 2.0	256MB to 8GB	Up to 25MB/s	SD 4-bit Interface	Any OS supporting SDHC

Specifications	
Error Correction and Wear Leveling	6 symbol Reed Solomon ECC; High performance 32-bit RISC architecture
Guarenteed Write/Erase Cycles	3,000,000
NAND Flash	SLC
RoHS Compliant	Yes
Operating Temperature	Commercial (0°C to 70°C) Industrial (-40°C to 85°C)
Warranty	Five Years

Netlist uses industrial temperature rated components (both the controller and the SLC NAND flash) for its industrial temperature flash products. Netlist does not screen out products manufactured with commercial temperature-rated components for industrial operations.



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